

## REMARKS

Claims 1 - 29 were pending in the application. Claims 1, 3-19, and 25 have been amended. Claims 2 and 20 have been canceled. Claims 1, 3-19, and 21-29 remain pending in the application. Reconsideration of the case is earnestly requested in light of the following remarks.

### Section 112 Rejections

Claim 8 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 8 and 25 have been amended to recite, "wherein X is at least eighty percent smaller than N". Applicant respectfully submits that this amendment overcomes the Section 112 rejection and requests the removal of this rejection.

### Section 101 Rejections

Claims 1-18 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. These claims have been amended to recite a "computer-readable memory medium". Applicant respectfully submits that this is statutory subject matter and requests removal of the Section 101 rejections.

### Section 102 Rejections

Claims 1, 5-16, 18, 19 and 23-29 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Pub. No. 2005/0086469 A1 to Dunagan et al. (hereinafter "Dunagan") and U.S. Patent Application Pub. No. 2004/0054807 A1 to Harvey et al. (hereinafter "Harvey"). Applicant respectfully traverses these rejections. (Since a combination of two different references was used to reject these claims, Applicant assumes that the Examiner intended to reject the claims under 35 U.S.C. 103(a) instead of 35 U.S.C. 102(e).)

Claims 2-4, 17, and 20-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dunagan and Harvey in view of U.S. Patent No. 6,282,170 B1 to Bentali et al. (hereinafter "Bentali").

Applicant respectfully traverses these rejections.

Claim 17 recites in pertinent part:

each node  $D_i$  in the plurality of nodes establishing a link to  $X$  other nodes chosen as  $D_{i+1}, D_{i+2}, \dots D_{i+X}$ , wrapping to  $D_0$  if necessary; and  
 for each node  $D_j$  in at least a subset of the plurality of nodes:  
     the node  $D_j$  establishing a link with one or more randomly chosen nodes not in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$ ;  
     each node in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$  establishing a link with the one or more nodes randomly chosen by the node  $D_j$ .

With respect to the limitations of, “the node  $D_j$  establishing a link with one or more randomly chosen nodes not in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$ ” the Examiner cites Dunagan’s teaching at paragraphs 71. The cited section of Dunagan relates to a scenario in which a Node A sends a subscription request and expects a confirmation reply. If Node A does not receive the confirmation reply then Node A picks a random entry from its routing table and re-sends the subscription request to the node indicated by the routing table entry. The randomly picked node that receives the subscription request then forwards the subscription request. (See paragraphs 70-71).

However, sending a message to a randomly chosen node is not the same as establishing a link with one or more randomly chosen nodes. The fact that Node A can send a message directly to the randomly chosen node means that Node A already has a link with that node. Dunagan does not teach that Node A establishes a link with the randomly chosen node, but instead Node A simply selects one of the nodes to which Node A already has an established link.

Furthermore, as the Examiner is certainly aware, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation to modify the reference or to combine reference teachings. The Office Action does not demonstrate or state any suggestion or motivation to combine Dunagan with Harvey. Applicant respectfully submits that one skilled in the art would not be motivated to combine Dunagan and Harvey, and that even if these references were combined, they still would not teach the above-recited limitations in combination with the other limitations recited in claim 17.

With respect to the limitations of, “each node in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$  establishing a link with the one or more nodes randomly chosen by the node

$D_j$ ” the Examiner cites FIG. 23 of Bentali, which illustrates node 152 with a link to node 155, and nodes 151 and 153 also with links to node 155. The Examiner states that one skilled in the art would have been motivated to combine Bentali with Dunagan and Harvey “to set up a new virtual path to avoid the failed-part”. Thus, the Examiner is apparently asserting that the respective links from nodes 151, 152, and 153 to node 155 are established when setting up a new virtual path to avoid a failure. However, the link between nodes 152 and 153 is illustrated in FIG. 23 as a failed link. The restoration path illustrated in FIG. 23 is apparently computed in order to avoid this failed link. Thus, the link between nodes 152 and 153 is not established during a process of setting up a new virtual path to avoid a failure, but is instead the failed link itself. Applicant thus disagrees with the Examiner’s stated reason to combine Bentali with Dunagan and Harvey.

Furthermore, claim 17 recites, “each node in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$  establishing a link with the one or more nodes randomly chosen by the node  $D_j$ ”. Since Bentali does not teach the node  $D_j$  establishing a link with one or more randomly chosen nodes, Bentali does not and cannot teach the further limitation that each node in the set  $D_{j-X}, D_{j-X+1}, \dots D_{j-1}, D_{j+1}, D_{j+2}, \dots D_{j+X}$  establishes a link with the one or more nodes randomly chosen by the node  $D_j$ .

Applicant thus respectfully submits that claim 17 is patentably distinct over the cited references for at least the reasons set forth above. Inasmuch as the other independent claims recite similar limitations as those of claim 17 discussed above, Applicant respectfully submits that the other independent claims are also patentably distinct over the cited references.

Since the independent claims have been shown to be patentably distinct over the cited art, Applicant respectfully submits that the dependent claims are also patentably distinct. Applicant also submits that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

In light of the foregoing amendments and remarks, Applicants submit that all pending claims are now in condition for allowance, and an early notice to that effect is earnestly solicited. If a phone interview would speed allowance of any pending claims, such is requested at the Examiner's convenience.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 5015055760-13700.

Respectfully submitted,



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